

Connection and Sharing for Exchanging Data

February 2015

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Connecting with your customers to exchange data in Portfolio Manager is a four-step process. In the first two steps, the user adds you as a “contact” (or connection) in his or her account and then you accept the connection. After the connection has been accepted, in the last two steps the user shares properties and/or meters with you, and then you accept each share. The connection and sharing steps, for both you and the user, are outlined in sections one through four below.

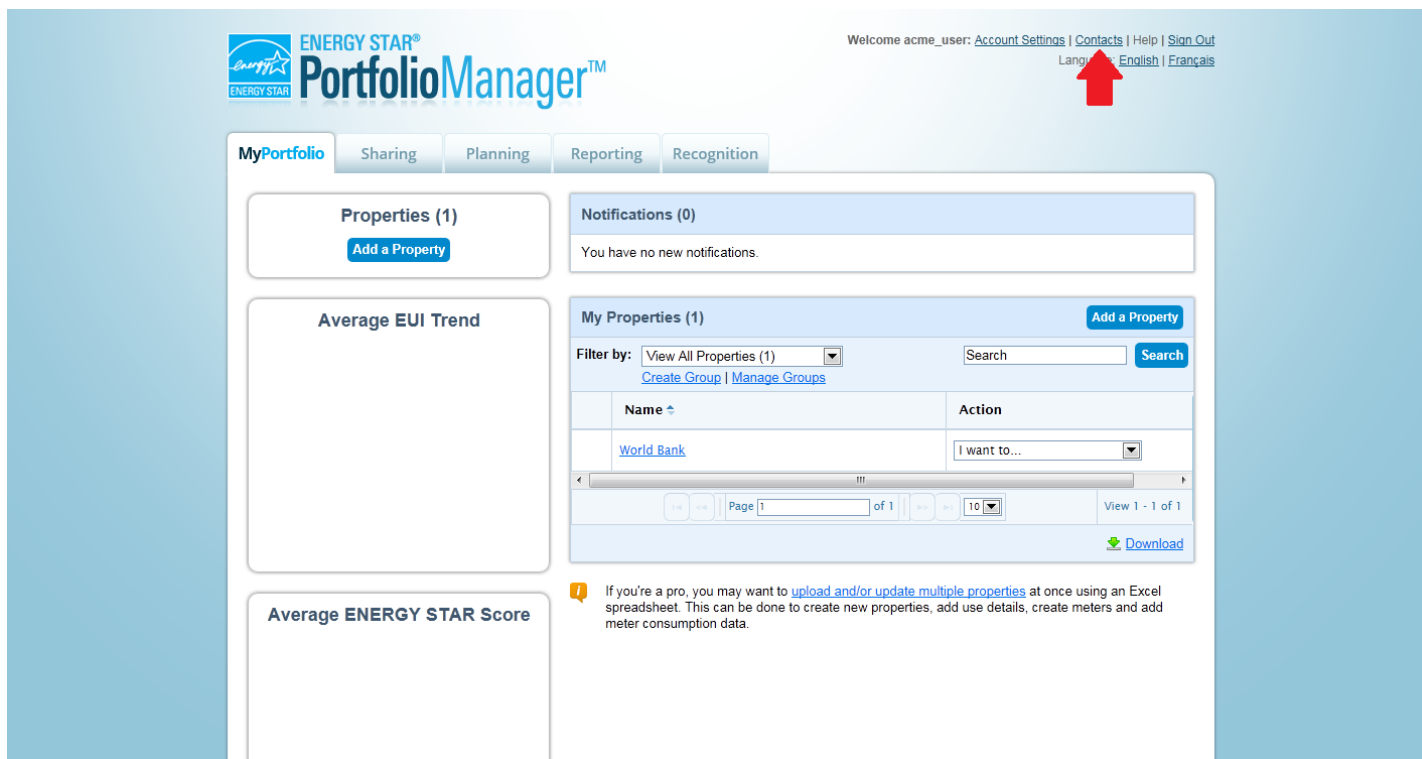
The exception to this four-step workflow is “share forward” in which someone shares a property or meter that was previously shared with them. In this case, the account-level connection and the property and meter shares may happen simultaneously instead of sequentially. Share forward is covered in additional detail in its own section.

Finally, sharing permissions can be edited or changed by the issuer after shares have been accepted. Best practices for managing these updates are covered in the section on ongoing share management.

Step 1: A User Adds You as a Contact

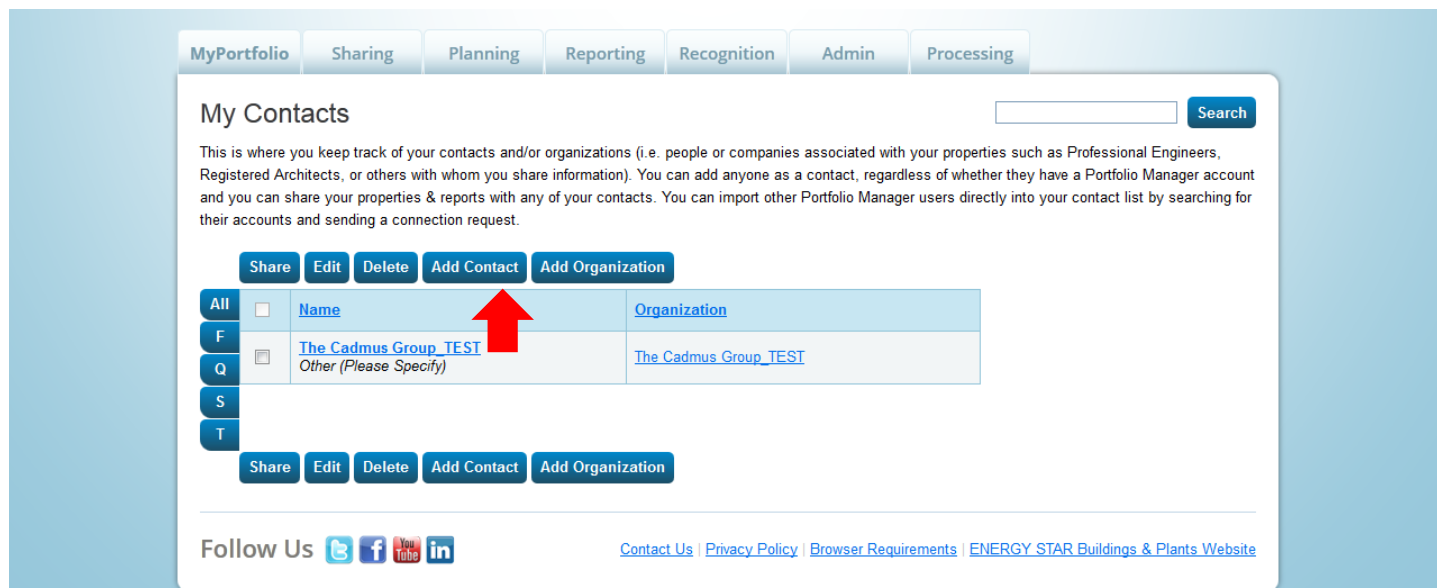
The user initiates the sharing process by adding you as a contact (or connection) in his or her account. This action is done as follows:

Step 1a: The user logs in to Portfolio Manager and clicks on the “contacts” link in the upper right-hand corner.



The screenshot shows the Energy Star Portfolio Manager interface. At the top right, the user is logged in as 'acme_user' and the 'Contacts' link is highlighted with a red arrow. The interface includes a navigation bar with tabs for 'MyPortfolio', 'Sharing', 'Planning', 'Reporting', and 'Recognition'. The main content area is divided into several sections: 'Properties (1)' with an 'Add a Property' button, 'Average EUI Trend', 'Average ENERGY STAR Score', 'Notifications (0)', and 'My Properties (1)'. The 'My Properties (1)' section shows a table with one property, 'World Bank', and an 'Action' column with a dropdown menu. A red arrow points to the 'Contacts' link in the top right corner of the interface.

Step 1b: On the “My Contacts” page, the user clicks on the “Add Contact” button.



My Contacts

This is where you keep track of your contacts and/or organizations (i.e. people or companies associated with your properties such as Professional Engineers, Registered Architects, or others with whom you share information). You can add anyone as a contact, regardless of whether they have a Portfolio Manager account and you can share your properties & reports with any of your contacts. You can import other Portfolio Manager users directly into your contact list by searching for their accounts and sending a connection request.

Share Edit Delete **Add Contact** Add Organization

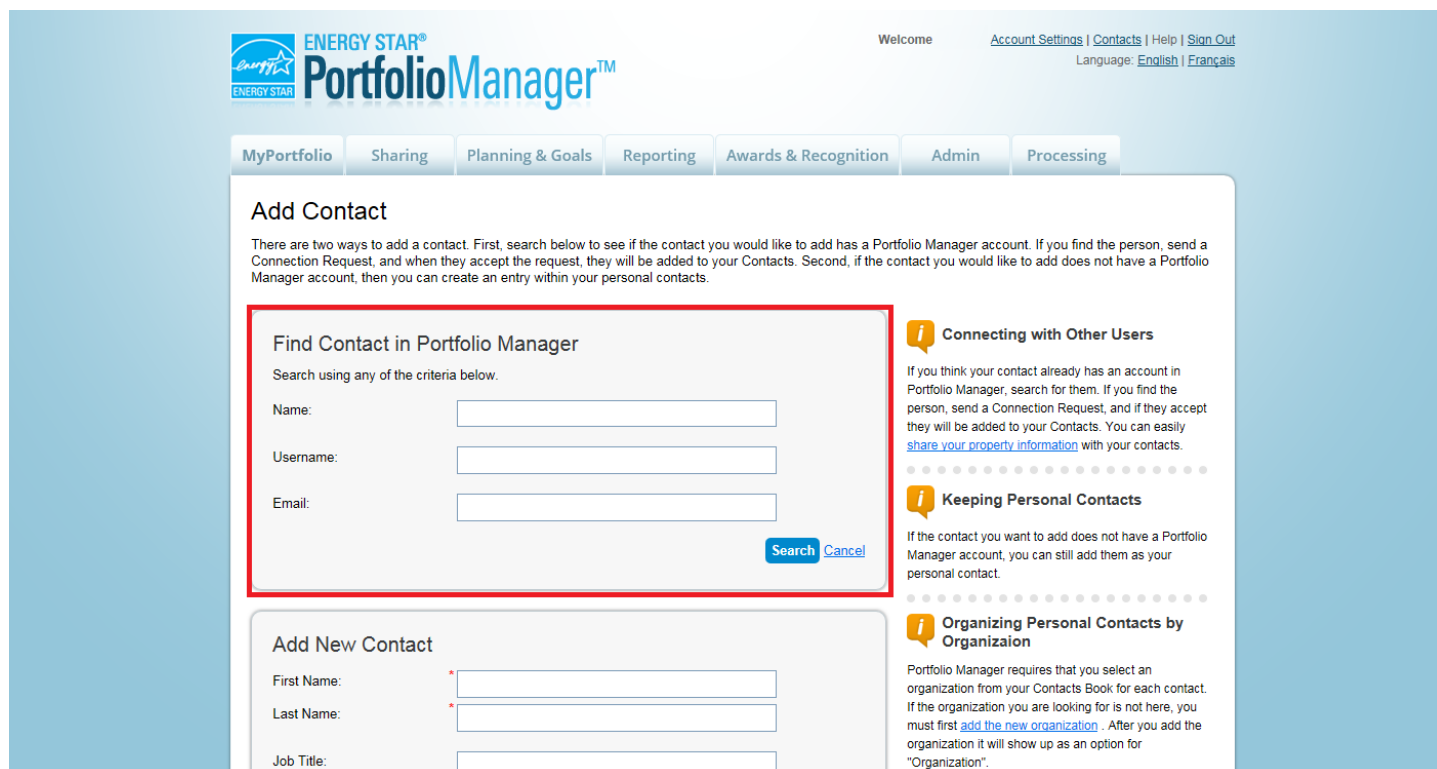
All	Name	Organization
F	The Cadmus Group_TEST	The Cadmus Group_TEST
Q	Other (Please Specify)	
S		
T		

Share Edit Delete **Add Contact** Add Organization

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Step 1c: On the “Add Contact” page, the user searches for your organization by name, username or email address.



Add Contact

There are two ways to add a contact. First, search below to see if the contact you would like to add has a Portfolio Manager account. If you find the person, send a Connection Request, and when they accept the request, they will be added to your Contacts. Second, if the contact you would like to add does not have a Portfolio Manager account, then you can create an entry within your personal contacts.

Find Contact in Portfolio Manager

Search using any of the criteria below.

Name:

Username:

Email:

Search [Cancel](#)

Add New Contact

First Name:

Last Name:

Job Title:

Connecting with Other Users

If you think your contact already has an account in Portfolio Manager, search for them. If you find the person, send a Connection Request, and if they accept they will be added to your Contacts. You can easily [share your property information](#) with your contacts.

Keeping Personal Contacts

If the contact you want to add does not have a Portfolio Manager account, you can still add them as your personal contact.

Organizing Personal Contacts by Organization

Portfolio Manager requires that you select an organization from your Contacts Book for each contact. If the organization you are looking for is not here, you must first [add the new organization](#). After you add the organization it will show up as an option for “Organization”.

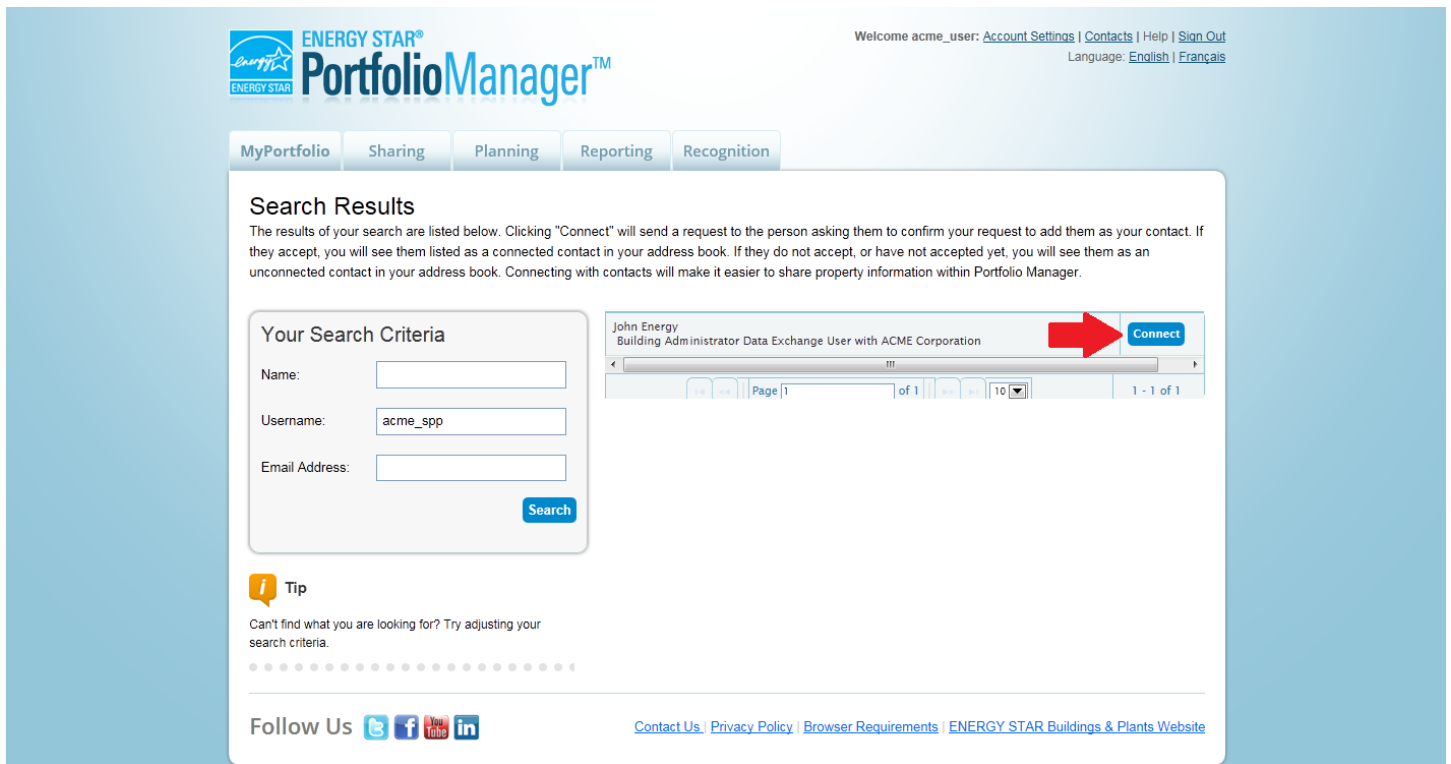
Please note that users can only find and connect with your account if it is searchable in Portfolio Manager. On the Account Settings page, you can change your searchability settings.

Searchability in Portfolio Manager

Can other people search for you and send you a [connection request](#)?

☒ Yes
☐ No

Step 1d: The user selects your organization from the search results and clicks on the “Connect” button.



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Welcome acme_user: [Account Settings](#) | [Contacts](#) | [Help](#) | [Sign Out](#)
Language: [English](#) | [Français](#)

MyPortfolio | Sharing | Planning | Reporting | Recognition

Search Results

The results of your search are listed below. Clicking “Connect” will send a request to the person asking them to confirm your request to add them as your contact. If they accept, you will see them listed as a connected contact in your address book. If they do not accept, or have not accepted yet, you will see them as an unconnected contact in your address book. Connecting with contacts will make it easier to share property information within Portfolio Manager.

Your Search Criteria

Name:

Username:

Email Address:

[Search](#)

Tip
Can't find what you are looking for? Try adjusting your search criteria.

John Energy
Building Administrator Data Exchange User with ACME Corporation

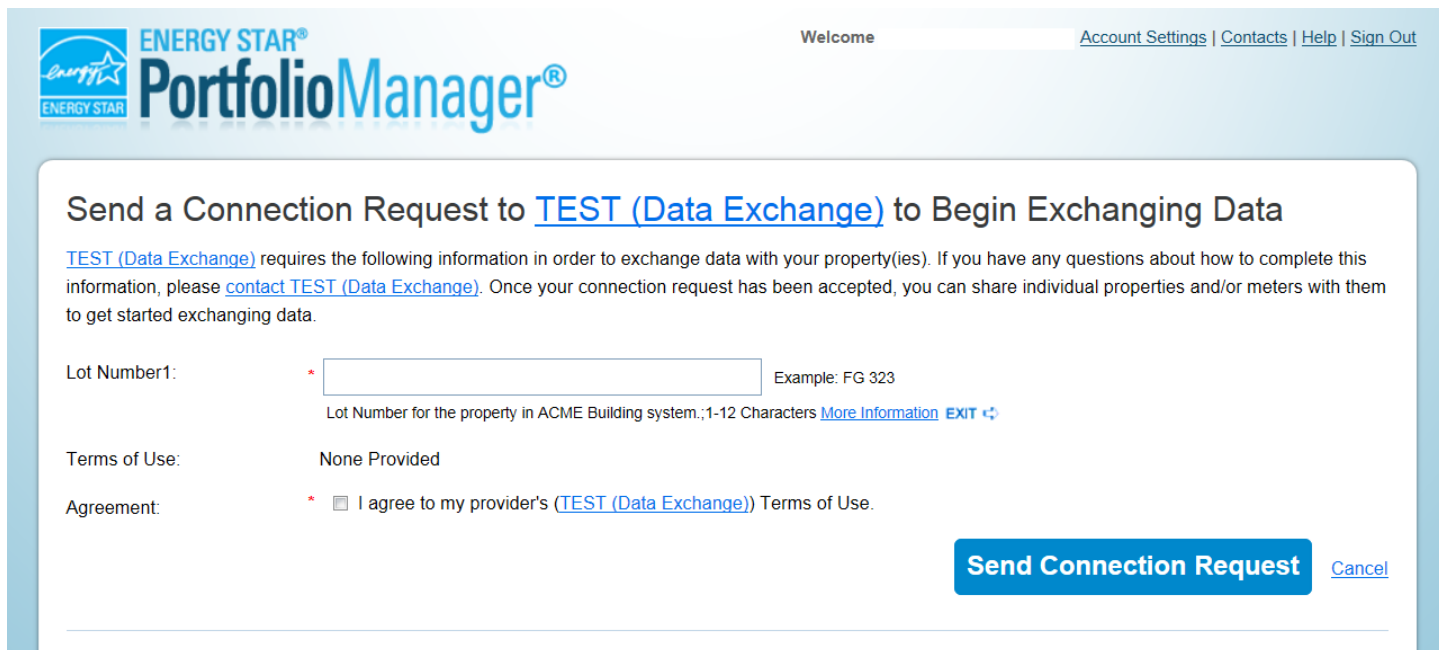
[Connect](#)

Page 1 of 1

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Step 1e: After clicking the connect button, the user will be prompted to accept any terms of use you have specified and will be asked to submit the account-level custom field values that you have configured previously via web services.



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Welcome [Account Settings](#) | [Contacts](#) | [Help](#) | [Sign Out](#)

Send a Connection Request to [TEST \(Data Exchange\)](#) to Begin Exchanging Data

[TEST \(Data Exchange\)](#) requires the following information in order to exchange data with your property(ies). If you have any questions about how to complete this information, please [contact TEST \(Data Exchange\)](#). Once your connection request has been accepted, you can share individual properties and/or meters with them to get started exchanging data.

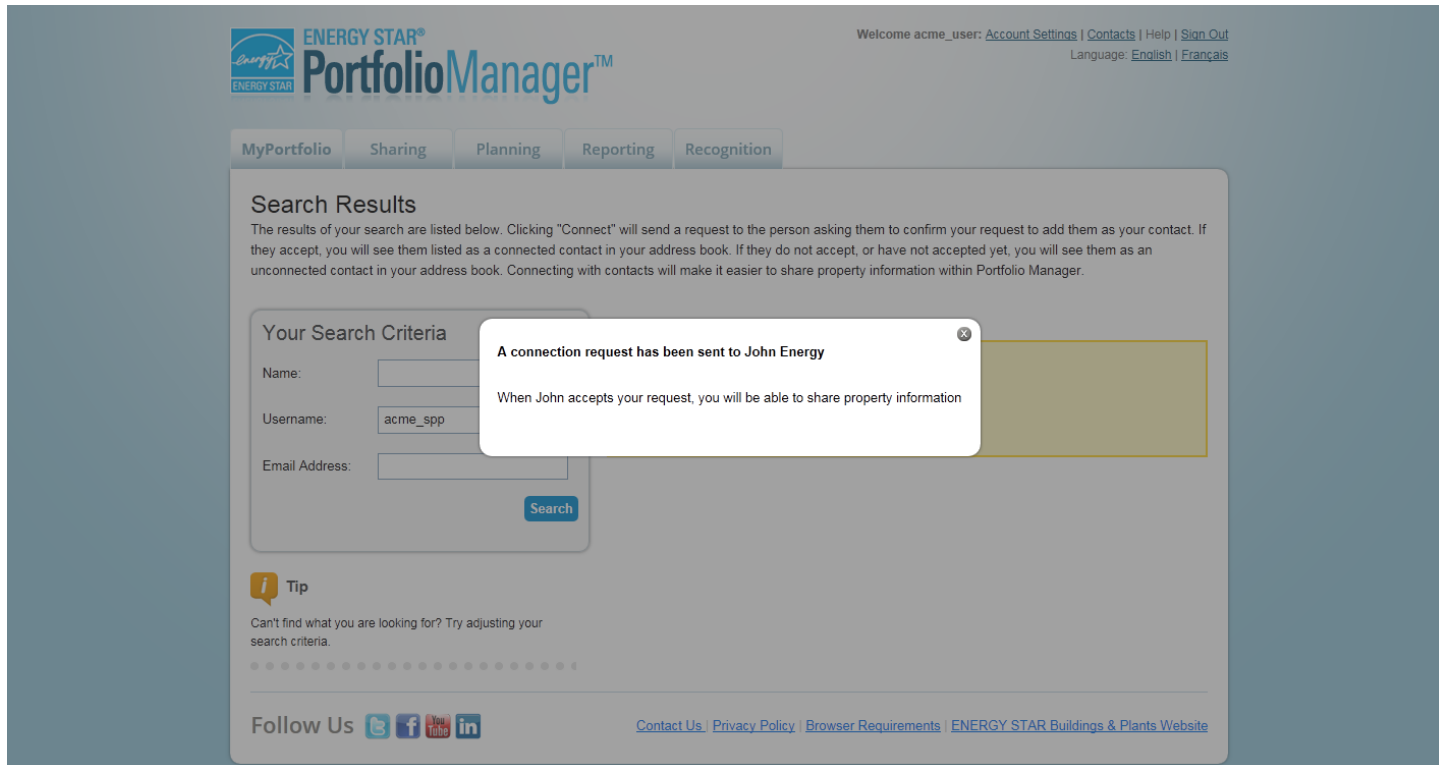
Lot Number1: * Example: FG 323
Lot Number for the property in ACME Building system.;1-12 Characters [More Information](#) EXIT ↕

Terms of Use: None Provided

Agreement: * ☐ I agree to my provider's ([TEST \(Data Exchange\)](#)) Terms of Use.

[Send Connection Request](#) [Cancel](#)

If no account-level custom field values have been configured, the user will not receive a prompt. Upon completion, the user will see a dialog box confirming that the connection request has been sent.



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Welcome acme_user: [Account Settings](#) | [Contacts](#) | [Help](#) | [Sign Out](#)
 Language: [English](#) | [Français](#)

[MyPortfolio](#) | [Sharing](#) | [Planning](#) | [Reporting](#) | [Recognition](#)

Search Results

The results of your search are listed below. Clicking "Connect" will send a request to the person asking them to confirm your request to add them as your contact. If they accept, you will see them listed as a connected contact in your address book. If they do not accept, or have not accepted yet, you will see them as an unconnected contact in your address book. Connecting with contacts will make it easier to share property information within Portfolio Manager.

Your Search Criteria

Name:

Username:

Email Address:

[Search](#)

A connection request has been sent to John Energy

When John accepts your request, you will be able to share property information

Tip
 Can't find what you are looking for? Try adjusting your search criteria.

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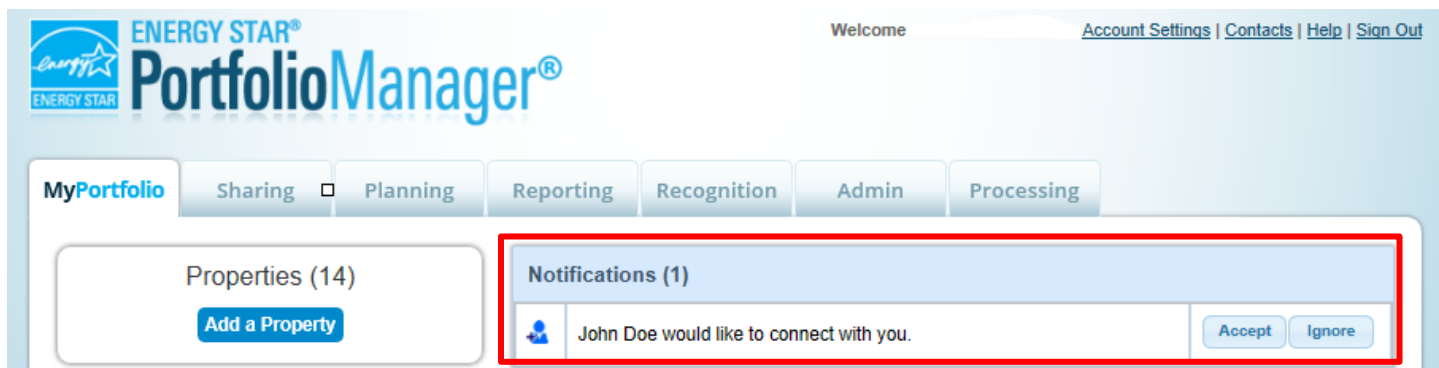
[Contact Us](#) | [Privacy Policy](#) | [Browser Requirements](#) | [ENERGY STAR Buildings & Plants Website](#)

Step 2: You Accept the Connection

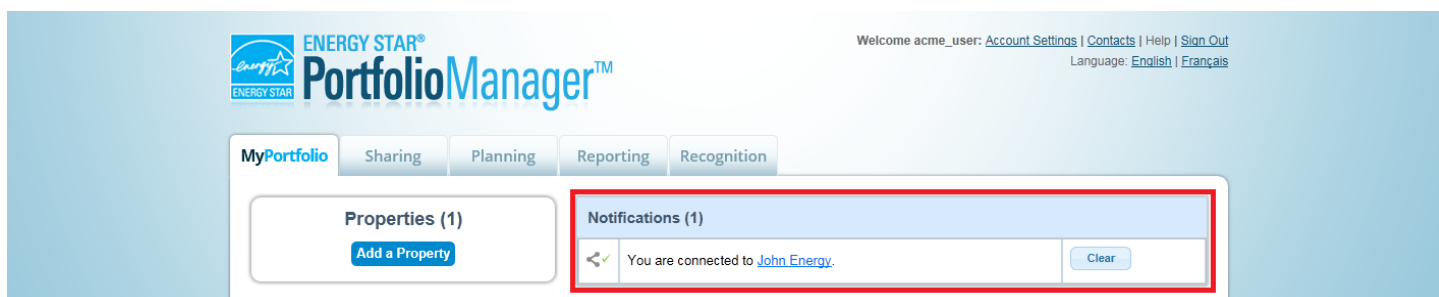
Step 2a: Obtain a list of pending connection requests by running [GET /connect/account/pending/list](#)

Step 2b: Accept the pending request by running [POST /connect/account/{accountId}](#).

Note: You can also accept connections via the Portfolio Manager website by logging into your account and confirming any pending connections in your notifications box (an example notification is shown in the screenshot below).

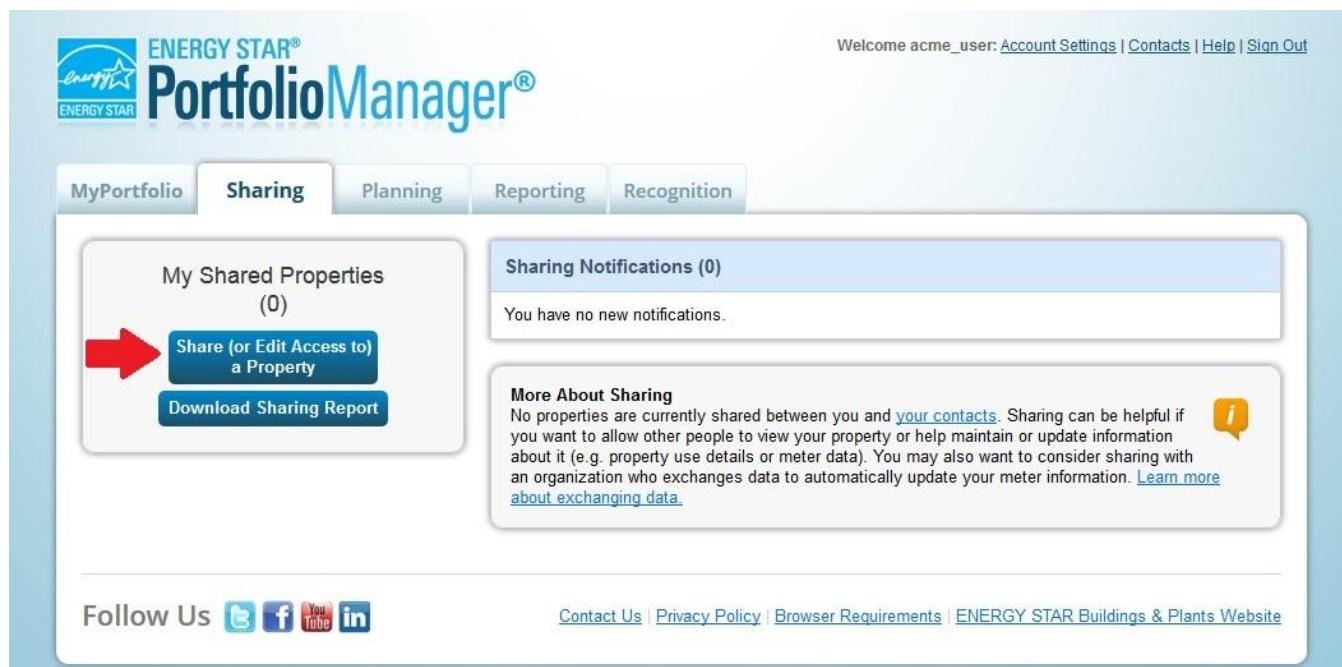


The user is notified that the connection request has been accepted via a message that will appear in the “Notifications” section of the main screen of Portfolio Manager the next time the user logs into Portfolio Manager.



Step 3: The User Shares a Property and/or Meters with You

Step 3a: The user logs into Portfolio Manager, clicks on the “Sharing” tab and clicks “Share a Property.”



Step 3b: On the “Share Your Properties” screen, the user selects the property(ies) that he or she wishes to share and selects your account from the dropdown list of accounts. The user then selects “Continue.”

1

Select Properties

We'll get into the details of the level of access later. For now, which properties do you want to share and/or edit access to?

One Property

Smith Bank

- Select Property -

Smith Bank

2

Select People (Accounts)

Which people (accounts) do you want to share these properties with (or modify their current access to)? The access for each can be different and you'll be able to specify that on the next page.

Select contacts from my contacts book:

Doe, John

To select multiple contacts, hold down your Control (CTRL) key and click on each selection. Only your connected contacts appear in this list.

3

Choose Permissions

If you only need to choose one permission (because you are doing a single share or you want to give the same permissions for all of your shares), select "Bulk Sharing." If you need to assign different permissions or share with Data Exchange providers, select the 2nd option.

☒ **Bulk Sharing ("One-Size-Fits-All")** - I only need to choose one permission (either because I am doing a single share OR I want to choose the same permission for all of my share requests).

☐ **Personalized Sharing & Exchange Data ("Custom Orders")** - I need to give different permissions for different share requests, and/or I need to give Exchange Data permission.

Sharing with Accounts

In order to share properties with others (either individuals or organizations), you need to be "connected" with them. To make a connection, go to the "Add Contact" or "Add Organization" page and search for them within Portfolio Manager (they need to have a Portfolio Manager account). Once you find them, send a "Connection" request. After they accept your connection request, they will show up on the list to the left.

Exchanging Data

To get started, first [connect with an organization that exchanges data](#). Once you are connected, their name will appear on the selection list on the left. **Note, you cannot share in bulk for "Exchange Data."**

Who gets to Share Forward?

Full Access - Automatically includes "Share Forward" rights

Read Only - Automatically does NOT include "Share Forward" rights

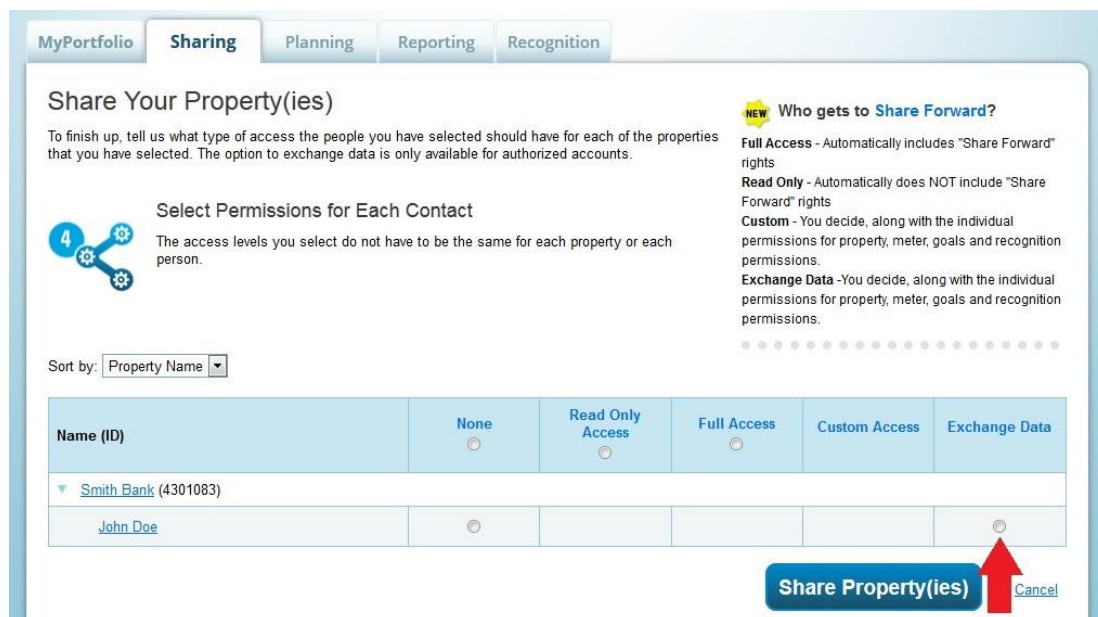
Custom - You decide, along with the individual permissions for property, meter, goals and recognition permissions.

Exchange Data - You decide, along with the individual permissions for property, meter, goals and recognition permissions.

Continue

Cancel

Step 3c: The selected properties will now appear on a permissions selection screen. The user will be able to grant different levels of sharing access by clicking on the radio button for “Exchange Data.”



Share Your Property(ies)

To finish up, tell us what type of access the people you have selected should have for each of the properties that you have selected. The option to exchange data is only available for authorized accounts.

Select Permissions for Each Contact

The access levels you select do not have to be the same for each property or each person.

Sort by:

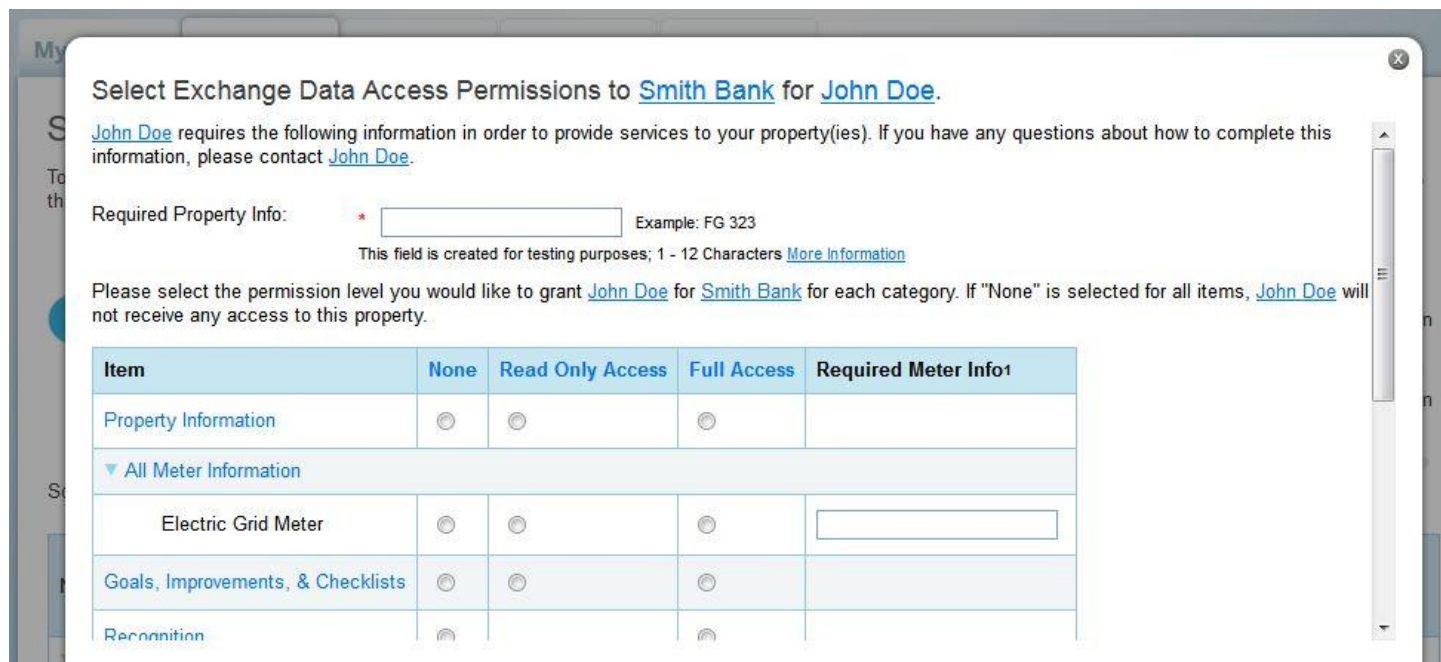
Name (ID)	None	Read Only Access	Full Access	Custom Access	Exchange Data
▼ Smith Bank (4301083)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
John Doe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

NEW Who gets to Share Forward?

- Full Access** - Automatically includes "Share Forward" rights
- Read Only** - Automatically does NOT include "Share Forward" rights
- Custom** - You decide, along with the individual permissions for property, meter, goals and recognition permissions.
- Exchange Data** - You decide, along with the individual permissions for property, meter, goals and recognition permissions.

[Share Property\(ies\)](#) [Cancel](#)

Step 3d: A dialog box will appear that will allow the user to select a level of access for exchanging data from “None” to “Read Only” to “Full Access” for the property and its meters. If the user cannot send out meter share requests, it could be that your system does not support that specific meter, in which case an alert will appear beneath the dialog box to notify the user. The user will also enter values for any property-level and meter-level custom fields on this screen.



Select Exchange Data Access Permissions to [Smith Bank](#) for [John Doe](#).

[John Doe](#) requires the following information in order to provide services to your property(ies). If you have any questions about how to complete this information, please contact [John Doe](#).

Required Property Info: * Example: FG 323
This field is created for testing purposes; 1 - 12 Characters [More Information](#)

Please select the permission level you would like to grant [John Doe](#) for [Smith Bank](#) for each category. If "None" is selected for all items, [John Doe](#) will not receive any access to this property.

Item	None	Read Only Access	Full Access	Required Meter Info
Property Information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
▼ All Meter Information				
Electric Grid Meter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Goals, Improvements, & Checklists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Recognition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Step 4: You Accept the Property and Meter Shares

After the user has generated a property-level or meter-level sharing request, you must retrieve the request and then accept or reject it. A user may choose to share read or read/write access to a property, but not the corresponding meters. Alternatively, a user may choose to share read or read/write access to meters, but not read/write access to corresponding property. If a meter has been shared, but the user does not explicitly share the associated property, the permissions screen shown above will automatically mark the receiving account's access level to the property as read-only before the user submits the share request. If you accept a meter share, any pending property share associated with that meter will be automatically accepted. Acceptance of a property-level share **does not** cause corresponding meter share requests to be accepted. Meter-level sharing requests must be accepted separately.

Step 4a: Search for pending property share requests using [GET /share/property/pending/list](#)

Step 4b: Accept pending property share requests by running [POST /share/property/\(propertyId\)](#)

Step 4c: Search for pending meter share requests using [GET /share/meter/pending/list](#)

Step 4d: Accept pending meter share requests by running [POST /share/meter/\(meterId\)](#)

You can disconnect from a user at any time using the [POST /disconnect/account/\(accountId\)](#) service. Disconnecting from an account will not automatically disconnect the property and meter shares associated with that account. If you wish to disconnect from an account and disconnect all associated properties and meters, you can set an optional flag in the account disconnect service that will remove all connections. You can also remove an individual property or meter share at any time using [POST /unshare/property/\(propertyId\)](#) and [POST /unshare/meter/\(meterId\)](#).

Share Forward

Portfolio Manager offers the ability to "share forward," or share a property that was shared with you. For example, a property owner may share a property with their consultant and want their consultant to share this property with you. In order to execute these shares the "middleman" will need to connect with you, and then share the owner's properties and meters. From a web services standpoint, all shares, whether originated by the account that owns the property (also called the Property Data Administrator or PDA) or originated by someone with whom the PDA has shared their property, will be accessed through the PDA's account ID. The way that you will receive and process these shares will depend on whether or not you are already connected to the PDA at the account level:

If you are already connected to the PDA

If you already have an account-level connection with the PDA, you will see incoming property and meter shares and be able to accept them the same as any other share (see Step 4 above). 'Share Audit' information is included with the pending share request that always lists the PDA's account ID in the <accountID> field and then additional <notificationCreatedBy> and <notificationCreatedByAccountId> fields that identify the account that generated the share so that you can determine whether a "middleman" account or the PDA initiated the share request. Middleman accounts can also be identified after the share has been accepted by pulling the "Property Shared By" metrics in the GUI or using the GET-Metrics web service to pull the propertySharedBy metric.

If you are not already connected to the PDA

If you are not already connected to the PDA, you will be sent an account-level connection request from the PDA **at the same time** that you are sent the property and meter shares. The order in which you process pending account-level connections and property/meter shares may be important to your business process. See below regarding the implications of different processing orders:

○ If processing pending account-level connections before property and meter shares:

- If you accept the new account-level connection request first (as in Step 2 above), you can then move on to accept (or reject) each individual property and meter share request, as you do for other shares.
- If you reject the new account-level connection request first, you automatically reject all pending property and meter share requests. Your rejection of the connection request indicates you do not wish to exchange data with that customer.
- Processing the account connection first is recommended if it is important to your business that you verify a valid account-level connection before transmitting data.

○ If processing pending property and meter shares first:

- If you accept a property and/or meter share that belongs to an account to which you are not yet connected, you will automatically accept the pending account-level connection request, too. This is similar to accepting a pending meter share which will automatically “roll-up,” accepting the pending share for that property if the latter hasn’t been accepted already.
 - Please note that pending property and meter share requests, as shown in a [GET /share/meter/pending/list](#) or [GET /share/property/pending/list](#) response, contain the account ID of their PDA account, so it is recommended that you use the share requests to obtain the PDA’s account ID for your database’s records since you will not see the connection request from the PDA if you accept one of their property or meter shares first.
 - If you are not able to do this during the share, you can access the PDA’s account information after accepting the share by running a GET /metrics call and including the metrics propertyDataAdministratorAccountId and propertyDataAdministratorAccountId.
- If you reject a property and/or meter share request then you will not automatically reject the account-level connection request. Rejections do not “roll-up” the way acceptances do.

Ongoing Share Management

Edits to Your Access Levels by the PDA and Other Users

Once established, sharing permissions can be revised by the PDA or any other user with full access to the property and/or meter at any time. When a user makes edits to your access, such as editing your permissions to individual meters, or editing your permissions to a property, you will receive a notification for each edit made. These notifications can be obtained by running [GET /notification/list](#); an example notification is provided below:

```
<notificationList>
<notification>
<notificationTypeCode>SHAREUPDATE</notificationTypeCode>
<notificationId>129681</notificationId>
<description>
Electric Grid Meter - Access level revised to Read Only by Customer John.
</description>
<accountId>88338</accountId>
```



```
<propertyId>5234642</propertyId>
<meterId>541018</meterId>
<notificationCreatedDate>2015-01-12T14:23:50-05:00</notificationCreatedDate>

<notificationCreatedBy> John_User_123</notificationCreatedBy>
<notificationCreatedByAccountId>88340</notificationCreatedByAccountId>
</notification>
</notificationList>
```

Please note that if your account is not connected with the account that edited your access, you will need to establish an account level connection with them in order to pull additional information on their account. You can submit a connection request to their account via web services using the account ID in the access edit notification.

Permissions edits automatically take effect; you do not need to accept them. The same process occurs when a user deletes a meter from a property they've shared with you.

Shares that a user does not edit will remain unchanged. When a user shares a new meter with you on a property with additional meters that have already been shared with you, those already established property and meter shares will not be affected; you will only need to accept the new meter share. As a best practice, EPA recommends that all providers exchanging data with users check their pending connection requests, property and meter share requests, as well as share edit notifications at the beginning of each session when using Portfolio Manager's web services.

Transfer of Ownership

Portfolio Manager also allows the transfer of ownership of a property record from one account to another account (i.e. make someone else the PDA). Typically, an ownership transfer happens in one of two cases:

- **An actual change in ownership (deed/title).** In this case, the physical property is bought/sold and the old owner gives the Portfolio Manager record to the new owner.
- **Staffing change within a company.** In this case, Company XYZ may own the property and it is managed in Jane Doe's account. When Jane leaves Company XYZ, she transfers ownership of the Portfolio Manager record to Mike Smith, who will take over as PDA.

When a property is transferred from one account to another, all existing sharing arrangements are left in place. This means when your customers transfer ownership of their property to another account, the share for that property may now be with an account with which you are not connected.

When a property transfer takes place, you receive a web services notification through [GET /notification/list](#) telling you that the property has been transferred. The notification includes the ID of the property that was transferred and the account ID and username of the new PDA. The notification does not include the new PDA's contact information for privacy reasons.

If you do not know the new PDA or why the property was transferred, it is up to you to decide whether you want to continue to exchange data. If you need confirmation that you are connected to the PDA's account (i.e. to confirm that the PDA has authorized you to release data for a property), you will need to set up a business rule that will stop exchanging data whenever a property is transferred.

If your account is not already connected to the new PDA account:

The new PDA account is not automatically connected with your account nor is a connection request automatically submitted to your account from their account. The recipient (new PDA) of the transferred property must submit an account level connection request manually in the GUI if they would like to be connected with your provider account.

We highly recommend making an account level connection with the new PDA because if there is no connection between your two accounts, any GET call your account makes that includes the new PDA's account ID will result in a 403 error.

For example, you can use the new PDA's account ID (as shown in the transfer notification) to obtain information on the property in [GET /account/accountID/property/list](#) calls only once your account is connected with the PDA's account.

You have two options to create an account level connection with the new PDA:

- 1) If you do not require acceptance of terms and conditions and/or account level custom fields, you can submit an account connection request to the new PDA via Portfolio Manager using the account ID you received in the above transfer notification.
- 2) If you require acceptance of terms and conditions and/or account level custom fields, you will need to terminate the property share (and its meter shares) once the transfer has occurred. Within [the xml of the share termination call](#), you can include a note to the new PDA requesting that they send your account a connection request that agrees with your terms and conditions and provides any needed custom field data by going to their account's Contacts page in the GUI. After a connection is established, the meters and properties can be re-shared from the new PDA to your account.